EUROPA Quick Start

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This tutorial provides just enough information for you to create and run simple planning problems using E2. Once you're familiar with the basics, see the <u>Documentation</u> page for more details.

NDDL Basics

The New Domain Description Language (NDDL) is a simple but powerful language used to describe both problem domains and problem instances in Europa. The following is a simple NDDL model representing a classical planning problem (simple examples from other domains can be found below):

- Introducing a simple NDDL model
- Introducing a simple NDDL instance

Create and Run a Project

Option 1: Using JAVA API

A simplified interfact designed to expose in a clean way only those internals of E2 required by a typical user. Easier to use, this is slightly less powerful (for example, when you build your own solver, you may need to learn more about the C++ interface).

Option 2: Using C++ API

With this approach, you get direct access to the internals of E2. It is therefore more powerful, but less clean. To create a project called PROJ, follow these steps:

- 1. In the /PLASMA directory, run ./makeproject PROJ. This creates a project directory filled with necessary files in . . /PROJ. See XXX for more details about these files.
- 2. cd ../PRO.J
- 3. Edit the **PROJ-model.nddl** file to define your problem domain.
- 4. Edit the **PROJ-initial-state.nddl** file to define your problem instance.
- 5. Compile and run your project by simply running **./jam** (jam options are described HERE XXX). This also runs the planner and dumps the final plan database to PROJ XXX XXX.output.xml.

Examine Results

- In the Text Dump
- Through Plan Works
- Programatically by making more calls to EUROPA₂

Examine Results 1

Examples

- Hello World
- Rover

Examples 2